

Numbers and Operations

Name _____

Lesson 4: Absolute Value and Integer Operations

Math for Standards

Date _____

Key Concepts:

Integers are the set of _____ { _____ }.

Every integer has an _____; 2 and -2 are _____

since they have _____. When added,

_____ add up to 0.

Absolute value will be _____ since we are looking for the

_____ from 0.

The commutative property works for _____ and

_____. This means I can add or multiply in any order

($2 + 3 = 5$ and $3 + 2 = 5$).

When you add or subtract a positive and negative number, your result will have the

_____ of the “bigger” number.

When you multiply two numbers with the same sign, the result will be

_____. When you multiply two numbers with opposite signs, the

result will be _____.

When you divide two numbers with the same sign, the result will be

_____. When you divide two numbers with opposite signs, the

result will be _____.

Example 1: The distance between an integer and its opposite is 18 units. What integers could they be?

Example 2: Simplify.

a. $|-4|$

b. $-|8|$

c. $-|-13|$

Example 3: State whether the following inequalities are correct or incorrect.

a. $|-10| < |0|$

b. $|4| > |-2|$

c. $|-7| > |-3|$

Example 4: Matt Mitarowski deposits \$16 into his bank account. He then writes a check for \$63. What integer would describe the combination of these two transactions?

Example 5: A restaurant has a decrease of 45 diners per month for a whole year. Write an expression using integers to describe the total decrease in diners for the year, then find the total number.